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ATTORNEY DOCKET NO. FIRST NAMED INVENTOR **FILING DATE** ION NO. R LAR-15348-2 HELLBAUM 01/24/97 08/797,553 **EXAMINER** MM42/1025 BUDD, M NASA LANGLEY RESEARCH CENTER PAPER NUMBER **ART UNIT** MAIL STOP 212 3 LANGLEY BOULEVARD 2834 HAMPTON VA 23681-0001 DATE MAILED: 10/25/99

Please find below and/or attached an Office communication concerning this application or proceeding.

Commissioner of Patents and Trademarks

	Application No. Applicant(s)
Office Action Summary	08/797553 Hellbaum et al
Office Action Summary	Evaminer Group Art Unit
	M. Budd 2834
—The MAILING DATE of this communication appea	ars on the cover sheet beneath the correspondence address—
Period for Reply	2
OF THIS COMMUNICATION.	TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE
from the mailing date of this communication. If the period for reply specified above is less than thirty (30) days, a result have period for reply specified above, such period shall, by default	1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS reply within the statutory minimum of thirty (30) days will be considered timely. It, expire SIX (6) MONTHS from the mailing date of this communication. tute, cause the application to become ABANDONED (35 U.S.C. § 133).
Status	
Responsive to communication(s) filed on $9-15$.	-99
☐ This action is FINAL.	
 Since this application is in condition for allowance excep accordance with the practice under Ex parte Quayle, 19 	ot for formal matters, prosecution as to the merits is closed in 35 C.D. 1 1; 453 O.G. 213.
Disposition of Claims	
Claim(s) 9- 47	is/are pending in the application.
Of the above claim(s)	is/are withdrawn from consideration.
□ Claim(s)	is/are allowed.
□ Claim(s)	is/are allowed.
□ Claim(s)	is/are allowed.
□ Claim(s)	is/are allowed. is/are rejected. is/are objected to. are subject to restriction or election
☐ Claim(s)	is/are allowed.
☐ Claim(s) ☐ Claim(s) ☐ Application Papers	is/are allowed. is/are rejected. is/are objected to. are subject to restriction or election requirement.
☐ Claim(s)	is/are allowed. is/are rejected. is/are objected to. are subject to restriction or election requirement. ing Review, PTO-948.
☐ Claim(s) ☐ Claim(s) ☐ Application Papers ☐ See the attached Notice of Draftsperson's Patent Draw	is/are allowed. is/are rejected. is/are objected to. are subject to restriction or election requirement. ing Review, PTO-948. is approved disapproved.
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U. S. Patent and Trademark Office PTO-326 (Rev. 9-97)

Part of Paper No.

Application/Control Number: 08/797,553

Art Unit: 2834

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless --

(a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for a patent.

Claims 9, 14 and 15 are rejected under 35 U.S.C. 102(a) as being cleary anticipated by Corwin or Haertling.

Claims 11 and 12 are rejected under 35 U.S.C. 102(a) as being clearly anticipated by Corwin.

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

Claims 10, 13 and 16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Corwin or Haertling. Corwin and Haertling teach the electroactive device except for some specific materials. Since it has long been held that selection from among known materials kis within the skill expected of the routineer, it would have been obvious to one of ordinary skill in the art to select appropriate materials for Haertling or Corwin.

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Claims 17-24 are rejected under 35 U.S.C. 103(a) as being unpatentable over Haertling in

view of Corwin. Haertling teaches an electroactive device except the prestress layer is an

integral part of the piezoelectric material rather than a separate, bonded layer. It has long been

held that making parts integral or separable is within the skill expected of the routineer. Further,

Corwin clearly teaches providing a separate prestress layer on the piezo element. Thus, it would

have been obvious to one of ordinary skill in the art that Haerthing could be made from plural,

bonded layers. Conversely, it would have been obvious to one of ordinary skill in the art that the

prestress of Corwin could have been placed on the concave side of the piezo material as taught

by Haertling.

Budd/dc

October 6, 1999

NIARTO O. BUDD PRIMARY EXAMINER NOT UNIT 212